REMARKS

The Applicants sincerely appreciate the thorough examination of the present application as evidenced by the Office Action of September 11, 2007 (the Office Action). In particular, the Applicants appreciate the Examiner's indication that Claims 6-7, 26-27, 29, and 32 would be allowable if rewritten in independent form. In response, the Applicants have: amended Claims 1, 3, 19, 21, 23, 25, 41, 43, 45, and 47 to provide clarification thereof; canceled Claims 12-18, 34-40, and 46 to reduce issues for further consideration; and added new Claims 48-51. The Applicants have not rewritten dependent Claims 6-7, 26-27, 29, and 32 in independent form because the Applicants will show that the independent claims are patentable.

In the following remarks, the Applicants will show that all pending claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested in due course.

Statement Of The Substance Of The Interview

The Applicants sincerely appreciate all courtesies extended by Examiner Bokhari during the telephonic interview of November 9, 2007. In particular, the Applicants appreciate the Examiner's consideration of proposed amendments of Claim 1. The Applicants believe that this paper satisfies all requirements for a Statement of the Substance of the Interview as set forth in 37 C.F.R. Sec. 1.133 and MPEP Sec. 713.04. If the Examiner should believe that any further submission should be required with respect to the telephonic interview of November 9, 2007, the Applicants respectfully request that the Examiner contact the undersigned attorney (Scott C. Hatfield) via telephone at (919) 854-1400.

Claims 1 And 23 Are Patentable Over Kametani And Nassar

Independent Claims 1 and 23 have been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over U.S. Publication No. 2002/0003803 to Kametani ("Kametani") in view of U.S. Publication No. 2004/0004968 to Nassar ("Nassar"). The Applicants respectfully submit, however, that Claims 1 and 23 are patentable over the combination of Kametani and

Nassar for at least the reasons discussed below. Claim 1, for example, recites a method of operating a data network between a routing gateway for a subscriber and a data service provider providing a data service wherein the routing gateway is at a customer premises remote from the data network, the method comprising:

> receiving at the data network from the data service provider an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider;
>
> responsive to receiving at the data network the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service, saving the data flow characteristics of the data service for the routing gateway at the data network; and
>
> forwarding the data flow characteristics of the data service from the data network to the routing gateway at the customer premises remote from the data network. (Underline added.)

In support of the rejection of Claim 1, the Office Action alleges that Kametani discloses:

> a method of operating a data network between a routing gateway for a subscriber and a data service provider providing a data service, the method comprising (see paragraph 0056 ..., paragraph 0057 ... and paragraph 0058...); receiving from the data service provider an identification of the routing gateway, an identification of the data service provider (see paragraph 0071 ...); data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider (see paragraph 0069 ...) and responsive to receiving the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service, saving the data flow characteristics of the data service for the routing gateway at the data network (see paragraph 0071 ... and paragraph 0072 ...).

Office Action, pages 3-4. The Office Action concedes, however, that Kametani fails to disclose "Forwarding the data flow characteristics of the data service to the routing as recited in Claim 1." Office Action, page 10. In further support of rejecting Claim 1, the Office Action alleges that Nassar teaches: "Forwarding the data flow characteristics of the data service to the routing (see paragraph 0044 lines 13-21 ...)." Office Action, page 11.

The Applicants respectfully submit, however, that Nassar fails to teach or suggest the elements of Claim 1 that the Office Action concedes are missing from Kametani. In general,

the cited portion of Nassar relates to Figure 6 which illustrates translation of an IP address in a sent IP packet by router 115 to a new IP address. *See*, Nassar, paragraph [0044]. More particularly, the cited portion of Nassar states that:

> The policy is to translate remote machine IP address 601a to a new remote machine address 601b in SA field 501 and define the forwarding rule by a next hop router (such as router 125 shown in FIG. 1). In one embodiment of the invention, other additional policies could be applied to the IP packets 500a based upon the values in other header fields 501-503 For example, the additional policies could apply rules to perform encryption, service flows, compression, or any other network layer service.

Nassar, paragraph [0044]. Nothing in the cited portion of Nassar, however, teaches or suggests forwarding data flow characteristic from a data network to a routing gateway. More particularly, Nassar fails to teach or suggest data flow characteristics that are received by a data network from a network service provider, and that are the forwarded to a routing gateway.

Accordingly, the Applicants respectfully submit that Claim 1 is patentable over the combination of Kametani and Nassar. In addition, the Applicants submit that Claim 23 is patentable for reasons similar to those discussed above with respect to Claim 1. Moreover, dependent Claims 2-11 and 24-33 are patentable at least as per the patentability of Claims 1 and 23 from which they depend.

Claim 19 Is Patentable Over Oishi And Kametani

Claim 19 has been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over U.S. Publication No. 2003/0237002 to Oishi ("Oishi") in view of Kametani. The Applicants respectfully submit, however, that Claim 19 is patentable over the combination of Oishi and Kametani for at least the reasons discussed below. In particular, Claim 19 recites a method of operating a routing gateway providing subscriber use of a data service provided by a data service provider over a data network wherein the routing gateway is at a customer premises remote from the data network, the method comprising:

> receiving data flow characteristics of the data service from the data network for a session of the routing gateway using the data service provided by the data service provider wherein the data flow characteristics are received at the routing gateway at the customer premises remote from the data network; and

> providing access from the routing gateway at the customer premises to the data service over the data network in accordance with the data flow characteristics received from the data network to support a data session with the data service provider. (Underline added.)

The Office Action concedes that Oishi does not disclose receiving data flow characteristics of a data service for a session of a routing gateway using the data service provided by the data service provider. In support of the rejection, the Office Action states that:

> Kametani in the same or similar field of endeavor teaches receiving data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider (see paragraph 0069 lines 4-11...).

Office Action, page 13. As discussed in the cited portion of Kametani:

> The network service provider binds and catalogs this identification information, type of service, VPN platform used and other information into the group of servers 3. After this cataloging is once carried out, upon the send of a request from the individual user for a desired service through the user terminal 7 to the access gateway 2, the access gateway 2 interprets the demand of the individual user, and sends the results to the IP network 1. (Underline added.)

Kametani, paragraph [0069]. Assuming for the sake of argument that the "identification information, type of service, VPN platform used, and other information" of Kametani is interpreted as data flow characteristics, Kametani states that the network service provider "binds and catalogs" this information "into the group of servers 3." Moreover, the group of servers 3 carry out management of the IP network 1 of Figure 1 of Kametani, and the group of servers 3 are not at a customer premises. Accordingly, Kametani teaches away from data flow characteristics being received at a routing gateway at a customer premises remote from a data network as recited in Claim 19.

Accordingly, the Applicants respectfully submit that Claim 19 is patentable over the combination of Oishi and Kametani. In addition, dependent Claims 20-22 are patentable at least as per the patentability of Claim 19 from which they depend.

Claim 41 Is Patentable Over Kametani And Nassar

Claim 41 has been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over Kametani in view of Nassar. The Applicants respectfully submit, however, that Claim 41 is patentable over the combination of Kametani and Nassar for at least the reasons discussed below. In particular, Claim 41 recites a routing gateway providing subscriber use of a data service provided by a data service provider over a data network wherein the routing gateway is at a customer premises remote from the data network, the routing gateway comprising:

> a transceiver configured to receive data flow characteristics of the data service from the data network for a session of the routing gateway using the data service provided by the data service provider wherein the transceiver is at the customer premises remote from the data network, and configured to provide access from the routing gateway at the customer premises to the data service over the data network in accordance with the data flow characteristics received from the data network to support a data session with the data service provider.

In support of the rejection of Claim 1, the Office Action alleges that Kametani discloses:

> A routing gateway providing subscriber use of a data service provided by a data service provider over a data network, the routing gateway comprising (see paragraph 0059 lines 1-11 ...); a transceiver configured to receive data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider (see paragraph 0068 lines 1-6 on page 4...).

Office Action, pages 9-10. The Applicants respectfully submit, however, that Kametani teaches away from a transceiver at a customer premises configured to receive data flow characteristics as recited in Claim 41. In particular, Kametani states that:

> The network service provider binds and catalogs this identification information, type of service, VPN platform used and other information into the group of servers 3. After this cataloging is once carried out, upon the send of a request from the individual user for a desired service through the user terminal 7 to the access gateway 2, the access gateway 2 interprets the demand of the individual user, and sends the results to the IP network 1. (Underline added.)

Kametani, paragraph [0069]. Assuming for the sake of argument that the "identification information, type of service, VPN platform used, and other information" of Kametani is interpreted as data flow characteristics, Kametani states that the network service provider

"binds and catalogs" this information "into the group of servers 3." Moreover, the group of servers 3 carry out management of the IP network 1 of Figure 1 of Kametani, and the group of servers 3 are not at a customer premises. Accordingly, Kametani teaches away from data flow characteristics being received at a transceiver at a customer premises remote from a data network as recited in Claim 41.

Moreover, the Office Action concedes that Kametani also fails to disclose a transceiver:

> Configured to provide access to the data service over the data network in accordance with the data flow characteristics received from the data network to support a data session with the data service provider as recited in Claim 41.

Office Action, page 10. In support of the rejection, the Office Action states that Nassar teaches:

> For Claim 41, configured to provide access to the data service over the data network in accordance with the data flow characteristics received from the data network to support a data session with the data service provider (see paragraph 0029 lines 1-17 on page 2 ...).

Office Action, page 11. As noted above, however, Kametani teaches away from receiving data flow characteristics at a routing gateway at a customer premises remote from a data network, and Nassar fails to provide this missing teaching, much less motivation to provide that which Kametani teaches away from.

Accordingly, the Applicants respectfully submit that Claim 41 is patentable over the combination of Kametani and Nassar. In addition, dependent Claims 42-44 are patentable at least as per the patentability of Claim 41 from which they depend.

Claim 45 Is Patentable Over Trethewey And Menditto

Claim 45 has been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0056002 to Trethewey ("Trethewey") in view of Menditto. The Applicants respectfully submit, however, that Claim 45 is patentable over the combination of Trethewey and Menditto for at least the reasons discussed below. In particular, Claim 45 recites a computer program product configured to operate a data network

between a routing gateway for a subscriber and a data service provider providing a data service wherein the routing gateway is at a customer premises remote from the data network, the computer program product comprising a computer useable storage medium having computer-readable program code embodied in the medium. The computer-readable program code comprises:

> computer-readable program code that is configured to receive from the data service provider at the data network an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider;
>
> computer-readable program code that is configured to save the data flow characteristics of the data service for the routing gateway at the data network responsive to receiving the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service; and
>
> computer-readable program code that is configured to forward the data flow characteristics of the data service to the routing gateway at the customer premises remote from the data network. (Underline added.)

The Applicants respectfully submit that the combination of Trethewey and Menditto fails to teach or suggest forwarding data flow characteristics to a routing gateway at a customer premises as recited in Claim 45. In support of the rejection of Claim 45, the Office Action states that Trethewey discloses:

> ... program code that is configured to receive from the data service provider ... data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider (see paragraph 0027 lines 4-9 ...) and computer-readable program code that is configured to forward the data flow characteristics of the data service to the routing gateway (see paragraph 0025 lines 1-12 ...).

Office Action, page 14. The portion of Trethewey cited with respect to forwarding data flow characteristics to a routing gateway fails to teach or suggest this recitation of Claim 45. In particular, the cited portion of Trethewey states that:

> The remote computer receives the probe response at step 75, and extracts the unique network address of the assigned server (35b) from the response at step 80. ... Using this unique address, the remote computer thereafter communicates directly with assigned server 35b at step 85, bypassing the load balancer. This prevents load balancer 25 from becoming a service bottleneck and avoids the latency problems and inefficient use associated with unnecessarily routing traffic through the load balancer.

Trethewey, paragraph [0025]. Receiving a probe response at a remote computer fails to teach or suggest receiving data flow characteristics at a routing gateway as recited in Claim 45. More particularly, Trethewey states that the probe response contains the "unique IP address of the assigned server." *See*, Trethewey, paragraph [0023]. Accordingly, Trethewey fails to teach or suggest forwarding data flow characteristics of a data service to a routing gateway at a customer premises remote from the data network, and the Office Action does not point to any portion of Menditto as providing this missing teaching.

Moreover, Menditto teaches away from forwarding data flow characteristics of a data service to a routing gateway at a customer premises remote from the data network because Menditto discusses control at a content gateway 18, and the content gateway 18 of Menditto is shown in Figure 1 of Menditto as a portion of information service provider 12. More particularly, Menditto states that:

> An important advantage of content gateway 18 is essentially control. This is because different traffic policies and differentiated services may be signaled to content gateway 18 causing, for example, packets between content gateway 18 and the origin server to receive high priority. (Underline added.)

Menditto, col. 4, lines 57-61.

Accordingly, the Applicants respectfully submit that Claim 45 is patentable over the combination of Trethewey and Menditto. In addition, dependent Claims 48, 50, and 51 are patentable at least as per the patentability of Claim 45 from which they depend.

Claim 47 Is Patentable Over Nassar And Menditto

Claim 47 has been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over Nassar in view of Menditto. The Applicants respectfully submit, however, that Claim 41 is patentable over the combination of Kametani and Nassar for at least the reasons discussed below. In particular, Claim 47 recites a computer program product configured to operate a routing gateway providing subscriber use of a data service provided by a data service provider over a data network wherein the routing gateway is at a customer premises remote from the data network, the computer program product comprising a computer useable storage medium

having computer-readable program code embodied in the medium. The computer-readable program code comprises:

> computer-readable program code that is configured to receive data flow characteristics of the data service from the data network for a session of the routing gateway using the data service provided by the data service provider wherein the data flow characteristics are received at the routing gateway at the customer premises remote from the data network; and
>
> computer-readable program code that is configured to provide access from the routing gateway at the customer premises to the data service over the data network in accordance with the data flow characteristics received from the data network to support a data session with the data service provider. (Underline added.)

The Office Action concedes that Nassar fails to disclose "computer-readable program code that is configured to receive data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider." Office Action, page 18. More particularly, Nassar fails to teach or suggest receiving data flow characteristics at a routing gateway at a customer premises remote from the data network as recited in Claim 47. In support of the rejection, the Office Action states that Menditto discloses:

> Computer-readable program code that is configured to receive data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider (see column 2 lines 35-52 ...).

Office Action, page 18. The cited portions of Menditto, however, teach away from receiving data flow characteristics at a routing gateway at a customer premises remote from the data network because Menditto discusses (and illustrates in Figure 1) a content gateway policy manager (CGPM) 26 in information service provider 12. More particularly, cited portions of Menditto state that:

> Content gateway policy manager 26 is a management node in information service provider 12 that serves as a repository for content policies and communicates with content gateways 18 to distribute content policies within information service provider 12 and exchange policies with other content gateway policy managers in other information service providers.

Menditto, col. 2, lines 46-52. Menditto thus discusses a content gateway policy manager 26 in an information service provider 12 that serves as a repository for content policies as

opposed to receiving data flow characteristics at a routing gateway at a customer premises remote from a data network.

Accordingly, the Applicants respectfully submit that Claim 47 is patentable over the combination of Trethewey and Menditto. In addition, dependent Claim 49 is patentable at least as per the patentability of Claim 47 from which they depend.

Various Dependent Claims Are Separately Patentable

Dependent Claims 2-11, 20-22, 24-33, 42-44, and 48-51 are patentable for at least the reasons discussed above with respect to the independent claims. Various of these dependent Claims are also separately patentable. Dependent Claims 6-7, 26-27, 29, and 32, for example, are separately patentable as indicated on page 30 of the Office Action. Other dependent Claims are separately patentable for the reasons set forth below.

Dependent Claim 3, for example, is separately patentable. Page 19 of the Office Action states that Claim 3 is rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over Kametani in view of Nassar and further in view of U.S. Patent No. 6,795,443 to Jeong *et al.* ("Jeong"). Pages 22 and 23 of the Office Action, however, appear to rely on U.S. Patent No. 6,981,029 to Menditto *et al.* ("Menditto") to allegedly provide teachings that the Office Action concedes are missing from Kametani and Nassar. Accordingly, the Applicants will address the rejection of Claim 3 with the understanding that the Office Action intended to reject Claim 3 based on the combination of Kametani, Nassar, and Menditto.

Claim 3 depends from Claim 1 and thus includes all recitations of Claim 1 as discussed above. In addition, Claim 3 recites that the data flow characteristics of the data service include a bandwidth characterization for the data service and a priority characterization for the data service, and wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization to the routing gateway at the customer premises remote from the data network.

The Office Action concedes that Kametani and Nassar fail to teach data flow characteristics of the data service include a bandwidth characterization and a priority

characterization for a data service as recited in claim 3. In support of the rejection of Claim 3, the Office Action states that:

> Menditto discloses wherein the data flow characteristics of the data service include a bandwidth characterization for the data service (see column 14 lines 42-48 ...) and a priority characterization for the data service (column 4 lines 57-64...).

See Office Action, pages 22-23. Cited portions of Menditto state that:

> An important advantage of content gateway 18 is essentially control. This is because different traffic policies and differentiated services may be signaled to content gateway 18 causing, for example, packets between content gateway 18 and the origin server to receive high priority. (Underline added.)

Menditto, col. 4, lines 57-61. Other cited portions of Menditto state that:

> The quality of service component of content gateway 18 leverages L2/L3 quality of service features to provide differentiated service to qualified HTTP requests. This may include utilizing class based weighted fair queuing to allow specifying an exact amount of bandwidth to be allocated for a specific class of traffic tied to defined queue limits and drop policies. (Underline added.)

Menditto, col. 14, lines 41-48.

Assuming for the sake of argument that Menditto discusses bandwidth characterization and/or priority characterization as alleged by the Office Action, Menditto teaches away from forwarding bandwidth and/or priority characterizations to a routing gateway at a customer premises remote from a data network as recited in Claim 3. In contrast, Menditto discusses control at a content gateway 18, and the content gateway 18 is not at a customer premises remote from a data network. As discussed with respect to Figure 1 of Menditto, information service provider 12 includes one or more content gateways 18 (*see*, Menditto, col. 2, lines 39-43), and content gateway 18 provides a routing and processing at an edge of request content processing network 10 (*see*, Menditto, col. 2, lines 53-55). As shown in Figure 1, the content gateway 18 is included at the information service provided 12 and not at a customer premises remote from a data network. Accordingly, Menditto teaches away from forwarding bandwidth and priority characterizations to a routing gateway at a customer premises remote from the data network.

The Applicants thus submit that Claim 3 is separately patentable over the combination of Kametani, Nassar, and Menditto. The Applicants further submit that dependent Claims 21, 25, 43, 48, and 49 are separately patentable for reasons similar to those discussed above with respect to Claim 3.

CONCLUSION

Accordingly, the Applicants submit that all pending claims of the present application are in condition for allowance, and a Notice of Allowance is respectfully requested in due course. The Examiner is encouraged to contact the undersigned attorney by telephone should any additional issues need to be addressed.

Respectfully submitted,

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CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on December 10, 2007.

Signature: Mary Moore
Mary Moore